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( Not for submission under 37 CFR 1.99)

Application Number	10587371
Filing Date	2006-07-26
First Named Inventor	Ho Sung CHO
Art Unit	1647
Examiner Name	Shulamith H. SHAFER
Attorney Docket Number	AMBX-0028.00US

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1	ABUCHOWSKI, A. et al. "Cancer therapy with chemically modified enzymes. I. Antitumor properties of polyethylene glycol-asparaginase conjugates," Cancer Biochem Biophys. 1984 Jun;7(2):175-86	<input type="checkbox"/>
2	ALTSCHUL, SF et al. "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs," Nucleic Acids Res. 1997 Sep 1;25(17):3389-402	<input type="checkbox"/>
3	ALTSCHUL, SF et al. "Basic local alignment search tool," J Mol Biol. 1990 Oct 5;215(3):403-10	<input type="checkbox"/>
4	AMANN, E et al., "Vectors bearing a hybrid trp-lac promoter useful for regulated expression of cloned genes in Escherichia coli," Gene. 1983 Nov;25(2-3):167-78	<input type="checkbox"/>
5	ANDERSON, JC et al., "Exploring the limits of codon and anticodon size," Chem Biol. 2002 Feb;9(2):237-44	<input type="checkbox"/>
6	ANDRESZ, H et al. Abstract of "Chemische Synthese verzweigter Polysaccharide, 5; Kopplung von Oligosacchariden und Amylose an verschiedene Träger durch Hydrazonbindung," Makromol. Chem. 1978;179:301 Abstract	<input checked="" type="checkbox"/>
7	ARNOLD, FH. "Protein engineering for unusual environments," Curr Opin Biotechnol. 1993 Aug;4(4):450-5	<input type="checkbox"/>
8	AZOULAY, M., et al. "Glutamine analogues as Potential Antimalarials," Eur. J. Med. Chem. (1991); 26(2):201-5	<input type="checkbox"/>
5	BAIN, JD, et al. "Biosynthetic site-specific incorporation of a non-natural amino acid into a polypeptide," J. Am Chem Soc 1989;111(20):8013-8014	<input type="checkbox"/>
10	BALLANCE, DJ et al., "Transformation of Aspergillus nidulans by the orotidine-5'-phosphate decarboxylase gene of Neurospora crassa," Biochem Biophys Res Commun. 1983 Apr 15;112(1):284-9	<input type="checkbox"/>
11	BARANY, F. et al., "Genetic disease detection and DNA amplification using cloned thermostable ligase," Proc Natl Acad Sci U S A. 1991 Jan 1;88(1):189-93	<input type="checkbox"/>

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12	BARTON, DHR et al., "Synthesis of Novel alpha-Amino-Acids and Derivatives Using Radical Chemistry: Synthesis of L- and D-alpha-Amino-Adipic Acids, L-alpha-aminopimelic Acid and Appropriate Unsaturated Derivatives," Tetrahedron (1987) 43:4297-4308	<input type="checkbox"/>
13	BASS, S et al., "Mutant Trp repressors with new DNA-binding specificities," Science (1988) 242:240-245	<input type="checkbox"/>
14	BATZER, MA et al., "Enhanced evolutionary PCR using oligonucleotides with inosine at the 3'-terminus," Nucleic Acids Res. 1991 Sep 25;19(18):5081	<input type="checkbox"/>
15	BEACH, D et al., "Functionally homologous cell cycle control genes in budding and fission yeast," Nature 1982 Dec; 300:706 - 709	<input type="checkbox"/>
16	BEAUCHAMP, CO et al., "A new procedure for the synthesis of polyethylene glycol-protein adducts; effects on function, receptor recognition, and clearance of superoxide dismutase, lactoferrin, and alpha 2-macroglobulin," Anal Biochem. 1983 May;131(1):25-33	<input type="checkbox"/>
17	BERNSTEIN, FC, et al. "The protein data bank: a computer-based archival file for macromolecular structures," J. Mol. Biol. 1977; 112:535-542	<input type="checkbox"/>
18	BOISSEL, JP et al., "Erythropoietin structure-function relationships. Mutant proteins that test a model of tertiary structure," J Biol Chem. 1993 Jul 25;268(21):15983-93	<input type="checkbox"/>
19	BOLES, JO et al. "Bio-incorporation of telluromethionine into buried residues of dihydrofolate reductase," Nat Struct Biol. 1994 May;1(5):283-4	<input type="checkbox"/>
20	BOTSTEIN, D et D Shortle, "Strategies and applications of in vitro mutagenesis," Science. 1985 Sep 20;229 (4719):1193-201	<input type="checkbox"/>
21	BRUNNER, J. "New photolabeling and crosslinking methods," Annu Rev Biochem. 1993;62:483-514	<input type="checkbox"/>
22	BUCHNER, J. et al., "A method for increasing the yield of properly folded recombinant fusion proteins: Single-chain immunotoxins from renaturation of bacterial inclusion bodies," Anal. Biochem. 1992; 205(2): 263-270	<input type="checkbox"/>

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23	BÜCKMANN et al. "Functionalization of Poly(ethylene glycol) and Monomethoxy-Poly(ethylene glycol), "Makromol. Chem. 1981;182:1379-84	<input type="checkbox"/>
24	BUDISA, N et al. "High-level biosynthetic substitution of methionine in proteins by its analogs 2-aminohexanoic acid, selenomethionine, telluromethionine and ethionine in Escherichia coli," Eur J Biochem. 1995 Jun 1;230(2):788-96	<input type="checkbox"/>
25	BUDISA, N et al., "Bioincorporation of telluromethionine into proteins: a promising new approach for X-ray structure analysis of proteins," J Mol Biol. 1997 Jul 25;270(4):616-23	<input type="checkbox"/>
26	BUDISA, N et al., "Toward the experimental codon reassignment in vivo: protein building with an expanded amino acid repertoire," FASEB J. 1999 Jan;13(1):41-51	<input type="checkbox"/>
27	CAI, X-Y et al., "Expression, Purification, and Characterization of an Activated Cytokine-Suppressive Anti-inflammatory Drug-Binding Protein 2 (CSBP2) Kinase from Baculovirus-Infected Insect Cells," Protein Expression and Purification 1997; 10(2):263-74	<input type="checkbox"/>
28	CARBONELL, LF et al., "Baculovirus-mediated expression of bacterial genes in dipteran and mammalian cells," J Virol. 1985 Oct;56(1):153-60	<input type="checkbox"/>
29	CARRASCO, M. and R. Brown, "A Versatile Set of Aminooxy Amino Acids for the Synthesis of Neoglycopeptides," J. Org. Chem. (2003); 68(23): 8853-8858	<input type="checkbox"/>
30	CARTER, P. "Site-directed mutagenesis," Biochem J. 1986 Jul 1; 237(1):1-7	<input type="checkbox"/>
31	CARTER, P et al. "Improved oligonucleotide site-directed mutagenesis using M13 vectors" Nucleic Acids Res. 1985 Jun 25;13(12):4431-43	<input type="checkbox"/>
32	CARTER, P. "Improved oligonucleotide-directed mutagenesis using M13 vectors" Methods Enzymol. 1987;154:382-403	<input type="checkbox"/>
33	CHAIKEN, IM. "Semisynthetic peptides and proteins," CRC Crit Rev Biochem. 1981;11(3):255-301	<input type="checkbox"/>

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33	CHIN, JW et al., "Addition of p-azido-L-phenylalanine to the genetic code of E. coli," J Am Chem Soc. 2002 Aug 7;124(31):9026-7	<input type="checkbox"/>
35	CHIN, JW et al., "Addition of a photocrosslinking amino acid to the genetic code of Escherichia coli," Proc Natl Acad Sci U S A. 2002 Aug 20;99(17):11020-4. Epub 2002 Aug 1	<input type="checkbox"/>
36	CHIN, JW et al., "An expanded eukaryotic genetic code," Science. 2003 Aug 15;301(5635):964-7	<input type="checkbox"/>
37	CHIN, JW & P. G. Schultz, "In vivo photocrosslinking with unnatural amino acid mutagenesis," Chembiochem. 2002 Nov 4; 3(11): 1135-7	<input type="checkbox"/>
38	CHRISTIE, B.D. & Rapoport, H. "Synthesis of Optically Pure Pipecolates from L-Asparagine. Application to the Total Synthesis of (+)-Apovincamine through Amino Acid Decarbonylation and Iminium Ion Cyclization," J. Org. Chem. 1985;50(8):1239-1246	<input type="checkbox"/>
39	CLARK, R et al., "Long-acting growth hormones produced by conjugation with polyethylene glycol," J Biol Chem. 1996 Sep 6;271(36):21969-77	<input type="checkbox"/>
40	COREY, D.R., Schultz, P.G. "Generation of a hybrid sequence-specific single-stranded deoxyribonuclease," Science 1987; 238(4832):1401-1403	<input type="checkbox"/>
41	CORNISH, VW, et al., "Site-Specific Protein Modification Using a Ketone Handle," J. Am. Chem. Soc. 1996; 118(34):8150-8151	<input type="checkbox"/>
42	CORNISH, VW et al., "Probing Protein Structure and Function with an Expanded Genetic Code," Angew Chem Int Ed Engl, 1995;34(6):621-33	<input type="checkbox"/>
43	CRAIG, J.C. et al. "Absolute Configuration of the Enantiomers of 7-Chloro-4 [[4-(diethylamino)-1-methylbutyl]amino] quinoline (Chloroquine)," J. Org. Chem. 1988; 53(6):1167-1170	<input type="checkbox"/>
44	CREGG, JM et al., "Pichia pastoris as a host system for transformations," Mol Cell Biol. 1985 Dec;5(12):3376-85	<input type="checkbox"/>

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First Named Inventor Ho Sung CHO

Art Unit 1647

Examiner Name Shulamith H. SHAFER

Attorney Docket Number AMBX-0028.00US

49 CRICK, FHC, et al. "General nature of the genetic code for proteins," Nature. 1961 Dec 30;192:1227-32 ☐46 DALE et al., Oligonucleotide-directed random mutagenesis using the phosphorothioate method, Methods Mol. Biol. 1996;57:369-374 ☐47 DAS, S et al., "Transformation of Kluyveromyces fragilis," J Bacteriol. 1984 Jun;158(3):1165-7 ☐48 DAWSON, P. E. and S. B. H. Kent, "Synthesis of native proteins by chemical ligation," Annu. Rev. Biochem. 2000; 69:923-60 ☐49 DE BOER, HA et al., "The tac promoter: a functional hybrid derived from the trp and lac promoters," Proc Natl Acad Sci U S A. 1983 Jan;80(1):21-5 ☐50 DE LOUVENCOURT, L et al., "Transformation of Kluyveromyces lactis by killer plasmid DNA," J Bacteriol. 1983 May;154(2):737-42 ☐If you wish to add additional non-patent literature document citation information please click the Add button **EXAMINER SIGNATURE**

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